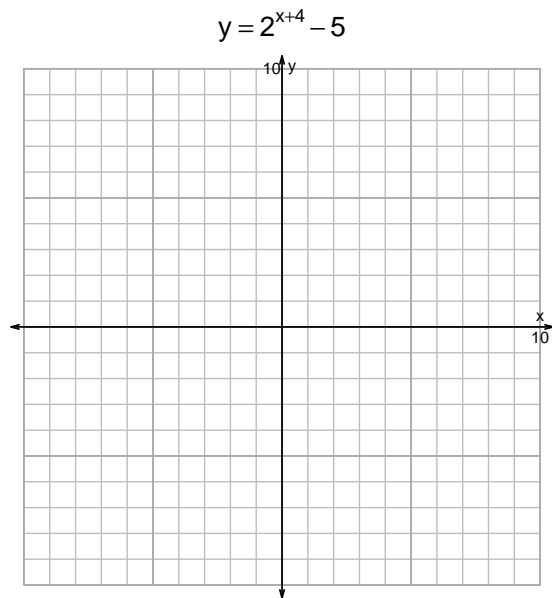
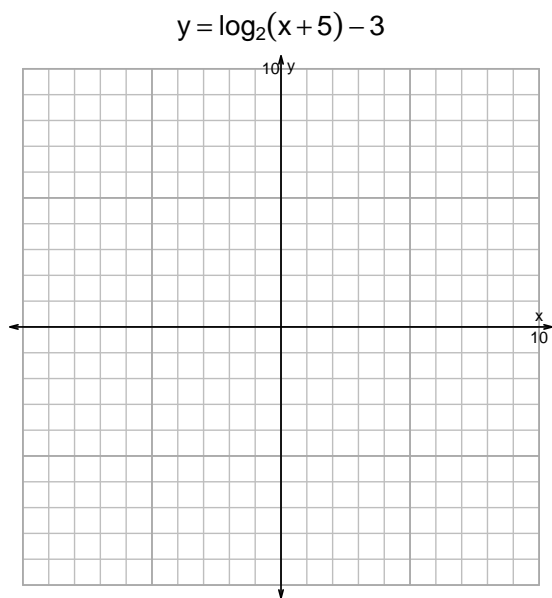


Name: \_\_\_\_\_

Date: \_\_\_\_\_

s18QUIZ: EXP LOG (EXAMPLE v5)

1. Graph  $y = \log_2(x + 5) - 3$  and  $y = 2^{x+4} - 5$  on the grids below. Also, draw any asymptotes with dotted lines.



2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$-13 = \left(\frac{-5}{7}\right) \cdot 2^{-4t/3}$$

3. An exponential function  $f(x) = 12.5 \cdot e^{-2.91x}$  is graphed below on a semi-log plot.



- a. Using the plot above, evaluate  $f(1.9)$ .
- b. Express  $f^{-1}(x)$ , the inverse of  $f$ .
- c. Using the plot above, evaluate  $f^{-1}(40)$ .